Cherokee County Community Health Assessment

I. Health Assessment Methods

The Cherokee County Health Assessment Team was made up of eight members. These members were Whitney Burge, Health Educator; Leslie Harris, Director of the School Nursing Program for Cherokee County Schools; Barbara Hughes, community volunteer and wife to the town of Murphy’s Mayor; Anita Moss, Nurse at MOOG Components, Cherokee County’s largest manufacturing facility; Sue Lynn Ledford, Safe Schools Healthy Students Director; Susi Brown, Community and Employee Wellness Nurse at Murphy Medical Center; Robin Caldwell, Emergency Management Director and Katrina Davenport with the Alcohol Crashes and Fatalities grant. The group worked together to discuss the survey instrument, the survey process, dissemination of the results and also to set the priorities.

Prior to sending out the community survey, a small preliminary survey was sent out to county employees as well as hospital employees to get their opinions on the most prevalent health issues in our county. Afterwards, one thousand community surveys were sent throughout Cherokee County in hopes of receiving five hundred or more back so as to get an adequate sample. They were distributed via the Health Occupations students at each of the three county high schools as well as via Tri-County Community College nursing students. Each student was given ten surveys as well as a list of demographics. This list included the range of people that the survey needed to reach so that the results represented the overall population of Cherokee County in relation to socioeconomic status, education, race, age, sex, etc. The survey was based on the example in the Community Assessment Guidebook but was reviewed by the CHA team and appropriate changes were made for Cherokee County. (Appendix A-County Employee Survey, Appendix B-CHA Survey and Appendix C-Demographics sheet)
The survey consisted of ten demographic questions, 73 question that were rated as “No Problem”, “Somewhat of a Problem”, “Major Problem” or “I Don’t Know” and 11 questions in the “Major Problems” and “Health Services” sections.

Of the 1000 surveys sent out into the county, 538 surveys were returned and analyzed.

The age breakdown of the survey respondents was very similar to the age breakdown of the county. This allowed for a good sampling of data. The largest group from the categories as shown above were under the age of 18 which is the second largest population group in Cherokee County.
The sex of the survey respondents was similar to that of Cherokee County as well as North Carolina. Cherokee County is made up of 51.8% women and 48.2% men whereas North Carolina has 51% women and 49% men.

![Ethnicity of Survey Respondents](image)

The ethnic breakdown of survey respondents was very comparable to that of the actual ethnic breakdown of Cherokee County.

**II. Cherokee County**

   **a. Historical Information**

Cherokee County was formed in 1839 from a portion of Macon County following the removal of the Cherokee in 1838. The county was named in honor of the Cherokees that were forced to leave North Carolina and march on the “Trail of Tears” to Oklahoma. Some of the Cherokee were able to escape the Trail of Tears and hid out in the mountains of Western North Carolina.
The descendents of some of the Cherokee now live on the Reservation for the Eastern Band of the Cherokee in Cherokee, North Carolina.

Fort Butler, which was an internment camp during the removal of the Cherokee Indians, was located on the Hiwassee River in what is now known as Murphy, the county seat. Murphy was named in honor of Archibald Murphey, a former legislator and advocate of public education. Cherokee County was originally made up of 938 acres that were taken from the Cherokee Indians. Clay County and Graham County were both formed from portions of this land in 1861 and 1872 respectively. The census of 1840 showed a population of 3,427 citizens and the 1860 census showed 9,166 citizens including 519 slaves.

Cherokee County was very rich in natural resources and logging became the area’s first industry. The rivers in the area were used to ship the logs to sawmills as well as to receive supplies from other areas. In 1887, the first railroad entered Cherokee County from the southwest into Culberson and reached Murphy in 1888 and was known as the Louisville and Nashville. Another railroad entered Cherokee County from the east in 1890 through Andrews and was known as the Southern. The railroads allowed the county’s resources to be exported throughout the country and other industries to move in. The railroads also brought in tourists which is still a huge industry in Cherokee County today. Cherokee County began getting paved streets in 1917 and the first paved road from Murphy to Georgia opened in 1922.

The Depression which hit in the 1930’s resulted in the development of the Tennessee Valley Authority which led to the building of roads throughout the Appalachia region as well as hydroelectric dams. The TVA opened up a large number of jobs for people in this area. In 1935 the TVA began construction of the Hiwassee Dam and completed it in 1940. This created the Hiwassee Lake which covers over 6,000 acres. Cherokee Lake, a 20 acre lake was also created by the TVA in 1939 for use as a fish hatchery to stock nearby reservoirs. The lake is now operated by the U. S. Forest Service as a day-use recreation area.

In the past and even today, Cherokee County residents have a strong bond with the land with the many lakes, farms, fishing streams, hiking trails and camping areas
b. Geographic Information

Cherokee County is located in the southwestern most corner of North Carolina and borders Graham, Clay and Macon Counties in North Carolina, Polk and Monroe Counties in Tennessee and bounds Fannin and Union Counties in Georgia. The county is within two hours driving distance from four major metropolitan cities, Asheville, Atlanta, Knoxville and Chattanooga. There are two municipalities, Murphy and Andrews, one incorporated community, and numerous other small unincorporated communities in Cherokee County. Murphy, which is the County Seat, has a population of 1,568 within the city limits and Andrews with a population of 1,602 per most recent census. Some of the other smaller communities in Cherokee County include Aquone, Culberson, Ranger, Hiwassee Dam, Unaka, Hanging Dog, Peachtree, Marble, Martins Creek, and Topton.

Cherokee County encompasses 455 square miles or 300,100 acres. Of this total area, 92,363 acres are owned by the US Forest Service, 8,700 acres are covered by lakes, and 6,000 acres are administered by the Bureau of Indian Affairs for the Eastern Band of Cherokee Indians. Other federal land is owned by The Tennessee Valley Authority. The majority of acreage in the county is privately owned with over 1,900 farms of various sizes.

The county has a diverse landscape. Elevations range from approximately 1,000 feet to nearly 5,000 feet above sea level. There are three major river valleys in the county. The Notley River flows into the south central portion of the county from Union County, Georgia. The Hiwassee River also flows from the south into the county. The river’s headwaters are in Towns County, Georgia. The river then flows through Clay County, NC, which borders Cherokee County to the east. The Hiwassee River feeds water to Lake Chatuge in Clay County and then flows to Mission Dam in Cherokee County before joining the third major river in the county. The third waterway is The Valley River. The Hiwassee and Valley Rivers converge in the city limits of Murphy which is the county seat. The rivers flow into the first of two major TVA impoundments located in Cherokee County. The 6090 acre Hiwassee Reservoir which offers 180 miles of shoreline was formed by the construction of what was at that time the highest overspill dam in the world,
Hiwassee Dam. The Dam is 307 feet high and stretches 1376 feet across the Hiwassee River basin. The reservoir has a storage capacity of 205,590 acre-feet and is capable of generating of 185,000 kilowatts of electricity. Below this dam is a second impoundment, Appalachia reservoir. This is a deep, cool water reservoir encompassing 1,100 acres. Both of these reservoirs have very limited private shoreline development and are surrounded by the Nantahala Forest.

c. Population

Cherokee County’s population estimate (per 2006 U.S. Census Bureau) is 26,309 which represents an 8.3% increase from April 1, 2000 to July 1, 2006. In the 4th quarter of 2007 The Economic Development Intelligence System (EDIS) reports the population of Cherokee County to have been 27,204 representing a 1.6% annual growth rate which is a slight increase over the 2000 through 2006 growth rate.
The largest population group in Cherokee County is 60+ followed by the 0-19 age range.

Cherokee County Racial distribution in 2006 was that 98.8% of the county population was of one race. The racial makeup further breaks down to 95.0% white, 1.8% black or African
American, 1.5% American Indian and Alaska Native, 0.3% Asian, 1.4% two or more races and 1.5% Hispanic or Latino (of any race).

Also per EDIS, the certified net migration was 2,726. Additionally the Cherokee County Economic Development Commission estimates that the seasonal (summer population) is between 34,000 and 36,000. This estimate is based on part time residents and second homes in the county and was labeled as a conservative estimate by the Cherokee County Manager and Cherokee County Economic Development Director. It is also noteworthy that Cherokee County is frequented by many tourists and is a major avenue of access for travel to other tourist attractions such as The Great Smoky Mountains National Park, The Blue Ridge Parkway, The Cherohala Skyway, the Cherokee Indian Reservation (which is home to Harrah’s Casino) and others.

Another factor that could affect a public health response is that the town of Murphy is currently the center of shopping activity for the tri-state and western counties area. Due to the rural nature of the area, Murphy is the only town within 30 miles (or more in some directions) that offers chain stores (such as Wal-Mart) and people routinely travel to Murphy to shop. These factors could theoretically cause the number of people in Cherokee County at a given time to possibly top 40 to 50 thousand. That number should be considered in the event there is a need for an emergency public health response.

### d. Government

Cherokee County operates under a council-manager form of government. This form of government in Cherokee County consists of three elected commissioners which are the policy-making body and a county manager who oversees the day to day business of the county. The county government maintains a website ([http://www.cherokeecounty-nc.gov/](http://www.cherokeecounty-nc.gov/)) where information regarding the commissioners, public meetings, public announcements, general business, departments of local government (including information about the health department and board of health members), various services, contacts, online mapping and other information about the county may be found.
e. Education

There are seven elementary schools, five middle schools, three traditional high schools, one early college high school, one charter school, one alternative school and a community college located in Cherokee County.

**Cherokee County Schools-2008**

<table>
<thead>
<tr>
<th>School</th>
<th>Grades</th>
<th>Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrews Elementary</td>
<td>PreK-5</td>
<td>370</td>
</tr>
<tr>
<td>Andrews Middle</td>
<td>6-8</td>
<td>212</td>
</tr>
<tr>
<td>Andrews High</td>
<td>9-12</td>
<td>277</td>
</tr>
<tr>
<td>Hiwassee Dam Elementary/Middle</td>
<td>PreK-8</td>
<td>170</td>
</tr>
<tr>
<td>Hiwassee Dam High</td>
<td>9-12</td>
<td>214</td>
</tr>
<tr>
<td>Marble Elementary</td>
<td>PreK-5</td>
<td>137</td>
</tr>
<tr>
<td>Martins Creek</td>
<td>PreK-8</td>
<td>214</td>
</tr>
<tr>
<td>Mountain Youth Center</td>
<td>6-12</td>
<td>64</td>
</tr>
<tr>
<td>Murphy Elementary</td>
<td>PreK-5</td>
<td>485</td>
</tr>
<tr>
<td>Murphy Middle</td>
<td>6-8</td>
<td>346</td>
</tr>
<tr>
<td>Murphy High</td>
<td>9-12</td>
<td>531</td>
</tr>
<tr>
<td>Peachtree Elementary</td>
<td>PreK-5</td>
<td>188</td>
</tr>
<tr>
<td>Ranger</td>
<td>PreK-8</td>
<td>410</td>
</tr>
<tr>
<td>Tri County Early College</td>
<td>9-12</td>
<td>95</td>
</tr>
<tr>
<td>The Learning Center Charter School</td>
<td>PreK-8</td>
<td>165</td>
</tr>
</tbody>
</table>

The total number of students enrolled in the Cherokee County school system for grades Pre-K through twelve is 3,878 students.

Tri-County Community College(TCCC), which serves Cherokee, Clay and Graham Counties, has about 1,200 students with the average age being 25 for males and 26 for females. The average age has decreased with the average age being in the 30’s only a few years ago. This downward trend is due to an increase in dual enrolment of high school students as well as the development of the new Tri-County Early College. About 60% of the students that attend TCCC are from Cherokee County and 6.2% of the students are minority. This percent has had an upward trend over the past few years.
Cherokee County has a lower percentage of high school graduates compared to North Carolina in 2000 as well as a lower percentage of people obtaining a Bachelor’s Degree or a higher degree.

Cherokee County has a higher percentage of students who completed all four years of school compared to North Carolina but Cherokee County has a lower rate of high school graduates.
From 2005/06 to 2006/07, Cherokee County’s dropout rate decreased quite a bit whereas North Carolina’s dropout rate increased as a whole. The main reasons that students dropped out of school in the 2006/2007 school year according to DPI was attendance, enrollment in community college and moving to another school district. Some other reasons include behavior problems and pregnancies. According to NC SCHS County Data Book, Cherokee County had 43 pregnancies within the 15-19 age bracket in 2006. This is 13.3% of the total pregnancies in Cherokee County for 2006.

### Education Levels of Cherokee County Survey Respondents

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Total</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Diploma</td>
<td>200</td>
<td>37.30%</td>
</tr>
<tr>
<td>HS Grad/GED</td>
<td>127</td>
<td>23.70%</td>
</tr>
<tr>
<td>Some college</td>
<td>92</td>
<td>17.20%</td>
</tr>
<tr>
<td>Associate's Degree</td>
<td>44</td>
<td>8.20%</td>
</tr>
<tr>
<td>Bachelor's Degree</td>
<td>42</td>
<td>7.80%</td>
</tr>
<tr>
<td>Advanced Degree</td>
<td>31</td>
<td>5.80%</td>
</tr>
</tbody>
</table>
The majority of our survey respondents fell into the category of “No Diploma.” This would be consistent with the age breakdown of survey respondents in that the majority were under the age of eighteen.

\textit{f. Socioeconomics}

Murphy Medical Center, Cherokee County Board of Education and Wal-Mart are Cherokee County’s top three employers. Cherokee County also has several manufacturing industries with between 100-249 employees. Some of these include Team Industries, MOOG Components Group of Blacksburg, VA and Indian Head Industries. The three largest industries based on employment in Cherokee County per EDIS are retail trade, health care and social assistance, and manufacturing.

\textbf{Cherokee County Top 5 Employers-NC ESC 2008}

<table>
<thead>
<tr>
<th>Employer</th>
<th>Description</th>
<th>Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Murphy Medical Center INC</td>
<td>Education &amp; Health Services</td>
<td>500-999</td>
</tr>
<tr>
<td>2-Cherokee County Board of Education</td>
<td>Education &amp; Health Services</td>
<td>500-999</td>
</tr>
<tr>
<td>3-Wal-Mart Associated INC</td>
<td>Trade, Transportation &amp; Utilities</td>
<td>250-499</td>
</tr>
<tr>
<td>4-Cherokee County</td>
<td>Public Administration</td>
<td>250-499</td>
</tr>
<tr>
<td>5-Tri-County Community College</td>
<td>Education &amp; Health Services</td>
<td>100-249</td>
</tr>
</tbody>
</table>
Cherokee County Income Data-Per EDIS

<table>
<thead>
<tr>
<th></th>
<th>Per Capita Income</th>
<th>Median Family Income</th>
<th>Median Household Income</th>
</tr>
</thead>
</table>

Cherokee County’s income values fall significantly lower than North Carolina in each category. The largest percentage of respondents on the Community Health Survey fell into the $30,000-$49,999 range for yearly household income. The survey also showed that the majority of this income supports three people.

![Unemployment Rates](chart)

The unemployment rate for Cherokee County is higher than the rate for North Carolina. The rate for Cherokee County is significantly higher than it has been in the last six years according to NC Employment Security Commission (ESC). This increased rate of unemployment is a serious issue in that it leads to an increased number of people being uninsured. According to the Community Health Survey, 73.5% of the respondents claimed to be covered under some type of health insurance. The Rural Data Book states that 19.8% of Cherokee County residents are uninsured.
Cherokee County has a higher percentage of residents living in poverty as well as a higher percentage of children living in poverty, compared to North Carolina as a whole. According to the Community Health Survey, 66.7% of the respondents thought that poverty in families with children was either a major concern or somewhat of a concern.
Cherokee County Free/Reduced Lunches-DPI 2006/07

<table>
<thead>
<tr>
<th></th>
<th>Free Lunch Applications</th>
<th>Reduced Lunch Applications</th>
<th>Needy %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cherokee County</td>
<td>1,449</td>
<td>579</td>
<td>56.13%</td>
</tr>
<tr>
<td>North Carolina</td>
<td>556,469</td>
<td>115,362</td>
<td>48.46%</td>
</tr>
</tbody>
</table>

According to these numbers, over half of the students in Cherokee County are provided with free or reduced lunches.

g. Environment

1- **Radon**- According to the Environment Protection Agency, Cherokee County is known as a Zone 1 county which states that there are predicted indoor levels of radon averaging greater than 4 Pico Curie per liter (pCi/L).

2- **Water Supply and Treatment**- Cherokee County has two water treatment plants; one in Andrews city limits and one in Murphy city limits. City water is provided in both city limits but the majority of the county uses well water. Water quality in the Hiwassee River basin is generally good ranking 80 out of 100 (the higher the better); however, some significant problems do exist. Several streams in Cherokee County appear on the North Carolina list of impaired waters and as development continues, the risk of additional impairment increases. Water quality is based on a series of complex tests using 15 indicators according to the Environmental Protection Agency (EPA).

3- **Air Quality**- The air quality in Cherokee County is 85 on a scale of 100 (the higher the better). This is based on ozone alert days and number of pollutants in the air according to the EPA.

4- **Municipal Waste**- There are two wastewater treatment plants in Cherokee County; one in Andrews and one in Murphy. There is also a municipal solid waste landfill located in Cherokee County. Based on information from the NC Department of Environment and Natural Resources, the average tons of disposed waste per year are 20,558. There are also many dumpster/recycling sites throughout the county. (Appendix D-Dumpster/recycling sites)

5- **Rabies**- There has been a recent outbreak of rabies in Cherokee County. Sixteen cases have been confirmed since February of 2008. The last confirmed case in Cherokee County prior to this outbreak was in the 1950’s. Cherokee County Health Department is playing an active role in trying to prevent the further spread of rabies by educating the
public through the local newspapers and radio stations as well as providing frequent rabies vaccination clinics.

6- Climate- The average temperature of Cherokee County is about 59 degrees. The average annual high is 71 degree and the average annual low is 48 degrees. Precipitation in Cherokee County is about 46 inches per year of rainfall and about 6 inches of snow a year. (EDIS County Profile)

7- Crime-

Index Crime Rates for Cherokee County per 100,000 Population
(State Bureau of Investigation)

<table>
<thead>
<tr>
<th>Year</th>
<th>Murder Rate</th>
<th>Rape Rate</th>
<th>Robbery Rate</th>
<th>Assault Rate</th>
<th>Burglary Rate</th>
<th>Larceny Rate</th>
<th>MVT Rate</th>
<th>Arson Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>8</td>
<td>32</td>
<td>20</td>
<td>375.6</td>
<td>875</td>
<td>1626.1</td>
<td>143.8</td>
<td>12</td>
</tr>
<tr>
<td>2005</td>
<td>7.9</td>
<td>43.2</td>
<td>3.9</td>
<td>271.2</td>
<td>790.1</td>
<td>1580.3</td>
<td>149.4</td>
<td>35.4</td>
</tr>
<tr>
<td>2006</td>
<td>3.9</td>
<td>3.9</td>
<td>3.9</td>
<td>54</td>
<td>73.3</td>
<td>455.1</td>
<td>38.6</td>
<td>3.9</td>
</tr>
<tr>
<td>2007</td>
<td>28.2</td>
<td>84.7</td>
<td>56.5</td>
<td>451.8</td>
<td>819</td>
<td>3360.6</td>
<td>451.8</td>
<td>56.6</td>
</tr>
</tbody>
</table>

Crime rates in Cherokee County increased significantly from 2006 to 2007. The index crime rates per 100,000 according to the SBI were 632.5 for 2006 and 5,252.8 for 2007. Violent crime rates increased from 65.6 in 2006 to 621.3 in 2007. Property crime rates increased from 556.9 in 2006 to 4,631.5 in 2007.

Illegal drug use and substance abuse was ranked as the number one area of concern on the Community Health Assessment. This issue is targeted by a local drug task force through the Cherokee County Sheriff’s Office. Substance abuse is also becoming more prevalent among school age children. According to the Cherokee County PRIDE survey, the average age of those children who have used tobacco, alcohol and marijuana were between the ages of 12 and 13.

III. Current Health Programs

A. Local Walking Trails-

Cherokee County has recently implemented several walking trails. The Towns of Murphy and Andrews have both put in trails within the city limits. Peachtree Athletic and Rehab Center (PARC), has also recently put an outdoor walking trail around their facility. The walking trail in Murphy is known as the River Walk and was started in 2003 and phase III is currently being added to the two previous phases. When completed, the trail will be approximately 2.5 miles long. This trail was funded by private donations, grants and federal funding through the TVA.
B. Hiwassee Valley Pool and Wellness Center-

The planning process for the Hiwassee Valley Pool and Wellness Center took six years and was funded by a USDA Loan, Parks and Recreation Trust Fund Grant, NC Rural Economic Development Grants, and funding from local donors. The total cost of the pool and wellness center was $2,946,000. The construction phase was started in August of 2006 and was completed June of 2007. What this wellness center offers to the public is a pool both uncovered in the summer and covered as well as heated in the winter, weight training equipment, cardio classes, aerobics, water aerobics, personal training, health education and swimming lessons. County employees receive a 20% discount for yearly memberships.

C. Murphy Medical Center-

Murphy Medical Center (MMC) has recently become a smoke free campus. Freedom from Smoking classes were offered to all staff who smoke starting in the fall of 2005. This course is offered through the American Lung Association. MMC became smoke free in 2006 and this applies to all employees, patients and visitors. There is a protocol that MMC follows when dealing with patients who smoke. The patient is offered a Nicotine patch during their stay if they do not wish to give up smoking.

IV. Health Facilities

A. Murphy Medical Center is located in Cherokee County and serves seven counties in Western North Carolina, Northern Georgia, and Eastern Tennessee. The hospital has a 57-bed capacity, 120 bed nursing home, 14 bed Alzheimer’s Unit, and a 24 hour emergency department. It is supported by over fifty primary care physicians and specialists. MMC is a fully accredited hospital and is affiliated with Mission St. Joseph Hospital in Asheville, Emory University Hospital in Atlanta, GA, and Erlanger Medical Center in Chattanooga, TN.
Murphy Medical Center

<table>
<thead>
<tr>
<th>How important are local hospital services to you?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Important</td>
</tr>
<tr>
<td>Somewhat Important</td>
</tr>
<tr>
<td>Not Important</td>
</tr>
</tbody>
</table>

Cherokee County survey respondents feel that local hospital services are very important.

<table>
<thead>
<tr>
<th>Doctor and Hospital Visits In/Out of Cherokee County in the Past 12 Months-CHA Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Doctor Visits</td>
</tr>
<tr>
<td>Cherokee County</td>
</tr>
<tr>
<td>Outside of CC</td>
</tr>
<tr>
<td>ER/Hospital Visits</td>
</tr>
<tr>
<td>Cherokee County</td>
</tr>
<tr>
<td>Outside of CC</td>
</tr>
</tbody>
</table>

The majority of doctor visits as well as emergency room/hospital visits were in Cherokee County but a large portion of doctor visits took place outside of Cherokee County. This could be due to the fact that Cherokee County lies so close to both Georgia and Tennessee. About 14% of survey respondents stated that they had doctor visits in another county in North Carolina, 12.6% said they had doctor visits in Georgia and 5.2% said they went to a doctor in Tennessee.
Cherokee County has a lower percentage of Health Professionals for the population than does the rest of North Carolina in all areas except pharmacists and physician assistants. This has an impact on the accessibility of health care in Cherokee County. (Appendix E-Active Physician List)
**How important is it that Cherokee County has a wide variety of local physicians?**

<table>
<thead>
<tr>
<th>Importance</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Important</td>
<td>73.5%</td>
</tr>
<tr>
<td>Somewhat Important</td>
<td>22.6%</td>
</tr>
<tr>
<td>Not Important</td>
<td>3.9%</td>
</tr>
</tbody>
</table>

In the Community Health Survey, Cherokee County survey respondents indicated that it is very important that Cherokee County have a wide variety of local physicians.

B. **Cherokee County Health Department** has a staff of 38 employees and has facilities located in Murphy and Andrews. Some programs provided by the health department are Women, Infant and Children (WIC)/Nutrition, Health Check, Breast and Cervical Cancer Prevention, prenatal clinics, family planning, immunizations, lab services, health education, environmental health services and many more.

The health department has recently changed in many staff positions with a new health director, assistant health director, health educator, lab director, clerical supervisor, WIC director, on-site water protection coordinator and food and lodging coordinator. These new changes have provided numerous benefits to the health department in providing quality care to the public.

The environmental health section has made tremendous improvements on the backlog of septic permit applications over the past three years. In 2005, there were over 1200 permits causing an 8 month waiting period. In February of 2008, there was a backlog of 322 active applications and 367 pending applications. As of October 2008, there were 312 pending applications and only 38 active with an average waiting time of 2-4 weeks.

**How important is it that Cherokee County provides free or reduced cost medical care?**

<table>
<thead>
<tr>
<th>Importance</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Important</td>
<td>79.3%</td>
</tr>
<tr>
<td>Somewhat Important</td>
<td>16.4%</td>
</tr>
<tr>
<td>Not Important</td>
<td>4.3%</td>
</tr>
</tbody>
</table>

According to Cherokee County residents, free or reduced cost medical care is very important.
V. Health Statistics

A. Insurance Coverage

Cherokee County Residents-Uninsured

(Cecil G. Sheps Center for Health Services Research)

<table>
<thead>
<tr>
<th>Cherokee County</th>
<th>Number</th>
<th>Percent</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ages 0-64</td>
<td>4,079</td>
<td>19.8%</td>
<td>67</td>
</tr>
</tbody>
</table>

Cherokee County Health Insurance-Children

(www.ncchild.org)

<table>
<thead>
<tr>
<th></th>
<th>NC Health Choice</th>
<th>Medicaid</th>
<th>Uninsured (ages 0-17)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cherokee County</td>
<td>11.6%</td>
<td>42.2%</td>
<td>11.6%</td>
</tr>
<tr>
<td>North Carolina</td>
<td>5.9%</td>
<td>32.6%</td>
<td>11.2%</td>
</tr>
</tbody>
</table>

Health Insurance Coverage for Cherokee County Survey Respondents

<table>
<thead>
<tr>
<th>Coverage Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicaid</td>
<td>21.20%</td>
</tr>
<tr>
<td>Medicare</td>
<td>15.40%</td>
</tr>
<tr>
<td>Private</td>
<td>59.20%</td>
</tr>
<tr>
<td>Other</td>
<td>4.20%</td>
</tr>
</tbody>
</table>

Over 73% of Cherokee County survey respondents are covered by Medicaid, Medicare, private insurance or another type of insurance. More than 26% have no coverage at all. This number is higher than the actual number of Cherokee County residents who are uninsured as well as North Carolina with 19.4% being uninsured.
B. Obesity

North Carolina has a lower percentage of underweight, at-risk and overweight children than North Carolina as a whole. However, according to Behavioral Risk Factor Surveillance System (BRFSS), Cherokee County has more than 15% of children ages 2-20 that are overweight.

North Carolina ranks 16th in the United States for rates of overweight and obese adults (Trust for America’s Health 2005 data). In Cherokee County and the surrounding region (Mountain Area Health Education Center (MAHEC) excluding Buncombe), 60.9% of adults are overweight or obese according to the Behavioral Risk Factor Surveillance System. The Healthy People 2010 objective is for 60% of the adult population to be at a healthy weight which is far from what it is in Cherokee County. Poor eating habits and lack of physical activity were of very high concern on the Community Health Assessment survey.
C. Cancer

Cancer Rates 2001-2005 per 100,000 Population
NCSCHS

Cherokee County’s rates were lower than North Carolina’s rates in every category except lunch/bronchus. The third goal in Healthy People 2010 is related to cancer and reducing the number of new cancer cases as well as illness, disability and death caused by cancer.

D. Sexually Transmitted Diseases

<table>
<thead>
<tr>
<th></th>
<th>AIDS</th>
<th>Gonorrhea</th>
<th>Syphilis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Cases</td>
<td>Per 100,000</td>
<td>Total Cases</td>
</tr>
<tr>
<td>Cherokee County</td>
<td>4</td>
<td>3.1</td>
<td>13</td>
</tr>
</tbody>
</table>
Cherokee County has lower rate of AIDS, gonorrhea and syphilis compared to North Carolina.

Cherokee County has a much lower incidence rate of Chlamydia compared to North Carolina as a whole.
Cherokee County’s rate in HIV and AIDS cases increased between 2006 and 2007. Cherokee County is ranked 50 out of 100 counties in both numbers of HIV cases and AIDS cases. The average rate from 2005 to 2007 was 12.7 for HIV cases and 6.3 for AIDS cases in Cherokee County.

According to the National Center for Health Statistics, in 2000 only 23% of sexually active women in the US reported that their partner used condoms. The Healthy People 2010 objective is to increase this percentage to 50% in hopes of reducing the incidences of STD’s and HIV/AIDS cases.

E. Mortality Rates

![Graph showing Leading Causes of Death, 2002-2006 Rate per 100,000 Population (County Data Book)]

Heart disease and cancer are the two largest leading causes of death in Cherokee County as well as North Carolina.
The infant mortality rate in Cherokee County is higher than that of North Carolina. There is also a large disparity between the infant mortality rates of white infants and minority infants in Cherokee County. The rate for minority infant deaths is over three times higher than that of white infant deaths.

F. Hospital Charges

Inpatient Hospital Charges by Diagnosis-2006

State Center for Health Statistics (SCHS) County Data Book

<table>
<thead>
<tr>
<th>Diagnostic Category</th>
<th>Average Charge Per Case</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIDS</td>
<td>$178,685</td>
</tr>
<tr>
<td>Colon, Rectum, Anus</td>
<td>$27,901</td>
</tr>
<tr>
<td>Arthropathies and Related Disorders</td>
<td>$27,475</td>
</tr>
<tr>
<td>Congenital Malformations</td>
<td>$27,211</td>
</tr>
<tr>
<td>Musculoskeletal Diseases</td>
<td>$25,538</td>
</tr>
<tr>
<td>Perinatal Complications</td>
<td>$25,461</td>
</tr>
</tbody>
</table>
The data above represents the top six average charges per case for each diagnosis in Cherokee County. This excludes newborns and discharges from out of state hospitals. In 2006, AIDS was the highest charge whereas pregnancy and childbirth was the lowest charge at $5,437 per case.

G. Trends
NORTH CAROLINA STATEWIDE AND COUNTY TRENDS IN KEY HEALTH INDICATORS:
CHEROKEE COUNTY

[Graphs and tables showing trends]
H. Disparities

Very little data was found on disparities in Cherokee County. However, according to BRFSS, there were many disparities between men and women as well as whites and minorities within the western region (MAHEC minus Buncombe County). Men as well as African Americans tend to have a higher percentage of incidences in significant disparities such as diabetes, heart diseases and kidney diseases.

VI. Summary

A. Top Issues from County Employee Survey
One hundred surveys were sent out to Cherokee County and Murphy Medical Center employees to determine what they believe to be the biggest health issues in Cherokee County. (Survey-Appendix A) The small survey had a list of fifteen health issues with an option to specify other concerns not listed. Eighty-four surveys were returned and after calculating the results, the top eight health issues were determined.

1- Drug Abuse 5- Diabetes
2- Alcohol Abuse 6- Mental Health
3- Obesity 7- Heart Disease
4- Smoking/Tobacco Use 8- Teen Pregnancy

B. Top Issues from Community Survey
Living in Our Community
- Job Opportunities
- Public Transportation
- Animal Control

Health and Human Services
- Private Health Insurance Coverage
- Hospital Services
- Drug and Alcohol Abuse

Health Services for Women, Infants and Children
• Poverty in Families with Children
• Child Abuse
• Child Health Care

Health Services for Older People
• Recreational or Social Programs
• Transportation
• Mental Health Care

Diseases and Disabilities
• High Blood Pressure
• Diabetes
• Heart Disease
• Other Cancers

Unhealthy Behaviors
• Illegal Drug Use/Substance Abuse
• Cigarette Smoking Among Adults
• Cigarette Smoking Among People Under 18

Violence
• Depression
• Child Abuse
• Youth Violence

C. Priorities
Priorities were discussed among the Community Health Assessment Team and were based on the top issues mentioned above. Priorities from the 2004 Community Health Assessment and 2007 State of the County Health report (SOTCH) were also taken into consideration as well as the issues where more than 50% of the survey respondents reported that it was a “major problem.” Other rising community issues were also discussed. Questions considered when choosing priorities were how many people does this issue affect and can this issue be reduced with the help of collaborative efforts throughout the community. (Appendix F-2007 SOTCH)
Top Ten Concerns from the Community Health Survey

1- Illegal Drug Use/Substance Abuse-66.7%
2- Cigarette Smoking Among Adults- 62.4%
3- Cigarette Smoking Among People Under 18- 61.7%
4- Job Opportunities-55.1%
5- Poor Eating Habits /Lack of Good Nutrition-53.0%
6- Lack of Physical Activity or Exercise-51.7%
7- Alcohol Abuse-51.4%
8- Drinking and Driving-51.3%
9- Teen Pregnancy-50.8%
10- Driving or Riding in a Car Without a Seatbelt-50.4%

After everything was considered, three priority areas were chosen to focus our efforts on over the next four years. Action plans will be developed to further address these concerns.

1- Substance Abuse- Illegal drugs, alcohol and tobacco use
2- Obesity/lack of physical activity
3- Mental health care and access

D. Dissemination of Results

The final product of the Community Health Assessment has been reviewed by the health director as well as assistant health director. The results of the Community Health Assessment will be presented December 8th, 2008 at the monthly Board of Health meeting. The results will also be presented to the community through the local newspapers and the county website. The Community Health Assessment team has discussed a community forum to present the results to all stakeholders in the beginning of 2009 as well as presenting at local school board meetings and the hospital.
APPENDIX A

Cherokee County/MMC Employee Survey on Health Issues

The purpose of this survey is to determine what you, as county/health related employees, believe to be the most prevalent health issues in our county. The results will be used as part of the Community Health Assessment which is conducted by the Cherokee County Health Department to better serve our community as well as for accreditation purposes. Please take a minute to fill out this survey and return it to your department head by Friday, August 29th. Thank you for your time.

Whitney Burge
Public Health Educator/Preparedness Coordinator
Cherokee County Health Department

In your opinion, what do you feel are the serious health issues in Cherokee County?

Please put a check in the box that you feel is appropriate.

<table>
<thead>
<tr>
<th></th>
<th>Not a Issue</th>
<th>Somewhat of an Issue</th>
<th>Serious Issue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Obesity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smoking/Tobacco Use</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor Dental Care</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drug Abuse</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alcohol Abuse</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mental Health</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor Diet</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of Exercise</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sexual Promiscuity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teen Pregnancy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heart Disease</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asthma</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Behavioral Disorders</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other(Specify):</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Cherokee County Community Health Survey

PLEASE READ ALL OF THE INSTRUCTIONS BEFORE YOU START!

This survey is part of the community health assessment currently in progress in your community. The following questionnaire has been developed to assess your opinion of local health assets, needs, and concerns. Your input makes a difference! Please take approximately 10 minutes to fill out the survey.

Part I: Information about You

Before you get started, we would like to know a little about you. These questions are of a personal nature, but are important and will be kept strictly CONFIDENTIAL. We do not ask your name on this survey.

Please circle the number to the left of your answer.

1) What is your age?  
   1. Under 18  
   2. 18–24  
   3. 25–34  
   4. 35–44  
   5. 45–64  
   6. 65–74  
   7. Over 74

2) Are you?  
   1. Male  
   2. Female

3) Are there any children living in your home who are 18 years old or younger?  
   1. Yes (Specify Number) ____  
   2. No

4) What is your race?  
   1. White/Caucasian  
   2. Black/African American  
   3. Hispanic/Latino/Latina  
   4. Native American  
   5. Asian/Pacific Islander
6. Other Race

5) What is the highest level of schooling you have completed?

1. 12th grade or less, no diploma or equivalent
2. High school graduate or equivalent (e.g., GED)
3. Some college, but no degree (includes vocational training)
4. Associate degree in college (e.g., AA)
5. Bachelors degree in college (e.g., BA, BS)
6. Advanced degree in college (e.g., masters, doctorate)

6) What is your job field?

1. Agricultural (farmer, rancher)
2. Business and Industry (banker, retailer, plumber, attorney)
3. Government (city manager, county employee, police)
4. Education (teacher, principal, professor)
5. Health (physician, nurse, administrator)
6. Student
7. Homemaker
8. Volunteer Services
9. Other ________________________________

7) Are you covered by a health insurance plan?

1. Yes
2. No

a. If yes, what type of coverage do you have?

   1. Medicare (includes supplemental policy)
   2. Medicaid
   3. Private Insurance (includes Blue Cross/Blue Shield)
4. Other __________________________________________

b. If you have private insurance, who pays the premium cost?

1. My employer pays the majority of the cost.

2. I (or my family) pay the majority of the cost

3. Employer and I (or my family) each pay about half.

4. Other __________________________________________

8) What was your total household income last year (before taxes)?

9) How many people does this income support? ________

   1. Less than $10,000
   2. $10,000–$19,999
   3. $20,000–$29,999
   4. $30,000–$49,999
   5. $50,000–$74,999
   6. $75,000–$99,999
   7. $100,000 or more
   8. Don’t know

10) How much of the time do you feel healthy and full of energy?

   1. All of the time
   2. Most of the time
   3. Some of the time
   4. None of the time
   5. Don’t know/unsure

Part II: Health and Human Services Opinion Survey

This next section of the survey asks your opinion about some conditions and services in your community. There are no right or wrong answers—We want to know what you think. We want to know if you
see the item as a problem or not in your community. For each of the issues named, select one of these three responses:

**No Problem:** This issue is **not a problem** and requires no additional attention by my community.

**A Problem:** This issue is **a problem**. My community needs to address this problem.

**Don’t Know:** I do not have enough information to determine whether or not this issue is a problem.

*Important Note:* Some of the questions address services. If your community does not provide the service, you can still answer the question. Is it a problem that the service is **not** offered?

**Living in Our Community**

In your opinion, does your community have a problem with any of these issues? (Circle your answer)

<table>
<thead>
<tr>
<th>Issue</th>
<th>No Problem</th>
<th>Somewhat of a Problem</th>
<th>Major Problem</th>
<th>I Don’t Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schooling for children from pre-kindergarten through high school</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Education &amp; vocational training for adults</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Job opportunities</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Public transportation</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Housing</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Social services</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Stores to buy things we need</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Legal services</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Animal Control</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Water supply and quality</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Service</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>-----</td>
</tr>
<tr>
<td>Air quality</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Injuries (car crashes, work-related, in the home)</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Recreation facilities (parks, trails)</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Safe Roads</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
</tbody>
</table>

**Health and Human Services**

*In your opinion, do people in your community have a problem finding or using these services?*

(Circle your answer)

<table>
<thead>
<tr>
<th>Service</th>
<th>No Problem</th>
<th>Somewhat of a Problem</th>
<th>Major Problem</th>
<th>I Don’t Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical care</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Hospital services</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Dental care</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Mental health care/counseling</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Emergency medical care</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Pharmacy/drug stores</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Drug &amp; alcohol treatment</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Rehabilitation after surgery or an injury</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Health education programs</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Transportation to health care</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Private health insurance coverage</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Enrolling in Medicaid/Medicare</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Food assistance ($ or food)</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Housing assistance (public housing or aid)</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Utilities assistance (to pay electricity or fuel bill)</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>------------------------------------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>-----</td>
</tr>
<tr>
<td>911 emergency services</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
</tbody>
</table>

**Health Services for Women, Infants and Children**

In your opinion, do people in your community have a problem finding or using these services? (Circle your answer)

<table>
<thead>
<tr>
<th>Service</th>
<th>No Problem</th>
<th>Somewhat of a Problem</th>
<th>Major Problem</th>
<th>I Don’t Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Care for pregnant women</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Child health care</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Childhood immunizations</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Child care for infants and preschoolers</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>After school care</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Poverty in families with children</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Child Abuse</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
</tbody>
</table>

**Health Services for Older People**

In your opinion, do older people or their caregivers in your community have a problem finding or using these services? (Circle your answer)

<table>
<thead>
<tr>
<th>Service</th>
<th>No Problem</th>
<th>Somewhat of a Problem</th>
<th>Major Problem</th>
<th>I Don’t Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical care</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Home health care</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Mental health care</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
</tbody>
</table>
### Transportation
- Transportation (for any need) 0 1 2 n/a
- Recreation or social programs 0 1 2 n/a
- Medical equipment 0 1 2 n/a
- Nutrition programs (like meals-on-wheels) 0 1 2 n/a
- Other 0 1 2 n/a

### Diseases and disabilities

In your opinion does your community have a problem with any of these diseases or disabilities? (Circle you answer)

<table>
<thead>
<tr>
<th>Diseases</th>
<th>No Problem</th>
<th>Somewhat of a Problem</th>
<th>Major Problem</th>
<th>I Don’t Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breast cancer</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Lung cancer</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Other cancers</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Diabetes</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Heart Disease</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>High blood pressure</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>HIV/AIDS</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Stroke</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Mental health problems</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Dental health problems</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Learning and developmental disabilities</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
</tbody>
</table>
**Unhealthy Behaviors**

In your opinion, are these unhealthy behaviors a problem in your community? (Circle your answer)

<table>
<thead>
<tr>
<th>Behavior</th>
<th>No Problem</th>
<th>Somewhat of a Problem</th>
<th>Major Problem</th>
<th>I Don’t Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol abuse</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Illegal drug use/substance abuse</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Cigarette smoking among adults</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Cigarette smoking among people under 18</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Teen pregnancy</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Drinking and driving</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Driving or riding in a car without seatbelts</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Sexually transmitted diseases</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Lack of physical activity or exercise</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Poor eating habits/lack of good nutrition</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
</tbody>
</table>

**Violence**

In your opinion, are these types of violence or issues that can lead to violence a problem in your community? (Circle your answer)

<table>
<thead>
<tr>
<th>Violence</th>
<th>No Problem</th>
<th>Somewhat of a Problem</th>
<th>Major Problem</th>
<th>I Don’t Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wife/husband abuse</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>n/a</td>
</tr>
<tr>
<td>--------------------------</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>-----</td>
</tr>
<tr>
<td>Child abuse</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abuse or neglect of older people</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Youth violence</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Youth access to and use of weapons</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weapons in schools</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sexual assault/rape</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suicide</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Part III: Major Problems**

1. Of the health concerns you identified in Part II, which one do you think is the most important?

2. In your opinion, what can be done to take care of the problem you identified above?

3. What other problems do you think affect your community that we didn’t ask about?

4. In your opinion, should public restaurants in Cherokee County be “No Smoking?”

    1. Yes
    2. No

**Part IV: Health Services**

*We have just a few more questions about health services in your community.*
1) During the past year, have there been any health–related services you or member of your household have needed but have not been able to find in your community?

1. Yes
2. No

2) If you answered “yes” to the above question, list these services

It is of value to the community to know whether or not community members obtain health services within the county or outside the county. The next five questions ask where you and members of your household go to see a doctor and where you go for hospitalization services.

3) Approximately how many physician visits have you and members of your household made during the past 12 months inside your county of residence?

**Number of Physician Visits in Your County of Residence _____**

4) Approximately how many physician visits have you and members of your household made during the past 12 months outside your county of residence? List the approximate number of visits in each county outside of your county of residence.

<table>
<thead>
<tr>
<th>Place of Physician Visits (List the County)</th>
<th>Number of Physician visits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5) Do you and your family have a designated primary health care provider? _____

**Please name primary care provider** ____________________________

6) Approximately how many times have you and members of your household visited the
emergency room or been admitted to the hospital in your county of residence during the past 12 months?

**Number of Hospital Admissions and ER Visits in Your County of Residence _____**

7) Approximately how many times have you and members of your household visited the emergency room or been admitted to the hospital outside of your county of residence during the past 12 months? List the approximate number of visits in each county.

<table>
<thead>
<tr>
<th>Number of Visits</th>
<th>List the County</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8) Please mark the following in order of importance to you

<table>
<thead>
<tr>
<th></th>
<th>Very Important</th>
<th>Somewhat Important</th>
<th>Not Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local hospital services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wide variety of local physicians</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Free/reduced cost medical care</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Thank you for your time!

Survey results will be tabulated and reported to the community.
Appendix C

Cherokee County Community Health Survey

How to Conduct Surveys:

- Please read all of the instructions and explain that all results are anonymous and confidential. Let them know what the results are going to be used for.
- Do not distribute surveys to one type of people—For example: Don’t just give out all of your surveys to your friends at school or to everyone in your family—we need a variety of people!
- Do not show bias—When reading the surveys, try to keep your voice at a monotone level. Do not sound surprised at any of the responses given. This could sway the results.
- Preferably, do not drop surveys off. Please allow the person to fill it out and give back to you immediately or read the survey to them and allow them to answer the questions.

Who to Give Surveys to:

- Men and Women
- Parents of young children
- Parents of school age children
- Teens/Young adults
- Middle age
- Seniors
- Minorities (African American, Native American, Hispanic, etc.)
- People from all parts of the county
- People who only live here part time
- Uninsured
- Different income levels
- Different education levels
- Employed/Unemployed
APPENDIX D

CHEROKEE COUNTY SOLID WASTE DEPARTMENT
75 Peachtree Street, Murphy NC 28906

Robert Allen
Solid Waste Director

OPERATING HOURS FOR HOUSEHOLD WASTE DISPOSAL

(All sites closed on Sunday and some holidays - call 837-2621 for holiday closings)

CANEY CREEK (320 Old Murphy Road)
Mon-Tues-Thurs 7 a.m. - 1 p.m.
Wed-Fri 1 p.m. - 7 p.m.
Sat 8 a.m. - 6 p.m.

PEACHTREE 1350 NC Hwy 141)
Mon-Wed-Fri 9 a.m. - 7 p.m.
Tues-Thurs-Sat 7 a.m. - 5 p.m.

INDUSTRIAL PARK (9275 US 64 West)
Mon-Wed-Fri 7 a.m. - 1 p.m.
Tues-Thurs 1 p.m. - 7 p.m.
Sat 8 a.m. - 6 p.m.

GRANNY SQUIRREL (19030 US 19/Topton)
Mon-Wed-Fri 7 a.m. - 1 p.m.
Tues-Thurs 1 p.m. - 7 p.m.
Sat 8 a.m. - 6 p.m.

MARTINS CREEK (4038 Hedden Rd)
Mon-Wed-Fri 7 a.m. - 1 p.m.
Tues-Thurs 1 p.m. - 7 p.m.
APPENDIX E

Murphy Medical Center, Inc.
Directory

Anesthesiology
MMC Anesthesia Department
Lee, Michael D, MD
4130 US Hwy 64 East
Murphy NC 28906
828-835-7550

Emergency Services
MMC Emergency Department
Burishkin, Daniel C, MD
4130 US Hwy 64 East
Murphy NC 28906
828-835-7510
Manning, Michael S, MD
4130 US Hwy 64 East
Murphy NC 28906
828-835-7510
Walters, William M, MD
4130 US Hwy 64 East
Murphy NC 28906
828-835-7510

Family Practice
Watras, Charles S, MD
3905 Hwy 64 East
Peachtree Place Suite 7
Murphy NC 28906
828-835-8733

Andrews Internal Medicine
Clayton, Thomas V, MD
P.O.550
Andrews NC 28901
828-321-4510

Chatuge Family Practice
Heavner, Teresa A, MD
P.O.1309
Hayesville NC 28904
828-389-6383
Molison, Matthew S, DO
P.O.1309
Hayesville NC 28904
828-389-6383
Stroup, Daniel F, MD
P.O.1309
Hayesville NC 28904
828-389-6383

Murphy Family Health
Zimmer, Stephen B, MD
4188 Hwy 64 East
Suite 12
Murphy NC 28906
**Gastroenterology**
Mock, Robert J, MD  
4733 US Hwy 64 East  
Suite A  
Murphy NC 28906  
828-835-3550

**General Surgery**
Meinecke, Henry M, MD  
4188 E. US 64  
Suite 8  
Murphy NC 28906  
828-837-7172

**Murphy Group Practice**
Doan, Terrence B, MD  
125 Medical Park Lane  
Suite L  
Murphy NC 28906  
828-837-7708

**Internal Medicine**

**Andrews Internal Medicine**
Roper, Gary W, MD  
P.O.550  
Andrews NC 28901  
828-321-4510

So, Laurence S, MD  
P.O.550  
Andrews NC 28901  
828-321-4510

**Peachtree Internal Medicine**
Larson, Jeffery D, MD  
4188 US Hwy. 64 East  
Suite 1  
Murphy NC 28906  
828-837-8131

Mitchell, Brian P, MD  
4188 US Hwy. 64 East  
Suite 1  
Murphy NC 28906  
828-837-8131

**Valley River Medical Group**
Cassell, Kenneth A, MD  
125 Medical Park Lane  
Suite G  
Murphy NC 28906  
828-835-9555

Garrett, Valerie D, MD  
125 Medical Park Lane  
Suite G  
Murphy NC 28906  
828-835-9555

**Obstetrics/Gynecology**

**Center for Women’s Health**
Clarkson, Jenkins L, MD  
75 Medical Park Lane  
Suite D  
Murphy NC 28906  
828-837-1332
Holder, Larry B, MD
75 Medical Park Lane
Suite D
Murphy NC 28906
828-837-1332

Ophthalmology
Eichenbaum, Daniel M, MD
1321 W. US Hwy. 64
Murphy NC 28906
828-837-5404

Orthopedics
Mountain Valley Orthopedics
Davis, Brent A, MD
145 Medical Park Lane
Suite I
Murphy NC 28906
828-837-9181

Otolaryngology/Facial Plastics
PeachTree ENT & Facial Plastics
Weisenburger, Richard T, DO
145 Medical Park Lane
Suite J
Murphy NC 28906
828-837-3223

Pathology
Angel Medical Center
Rohlfing, Michael B, MD
Riverview at White Oak St.
Franklin NC 28744-1209
828-524-8411

Pediatrics
Peachtree Pediatrics
Boland, Pamela G, MD
125 Medical Park Lane
Suite H
Murphy NC 28906
828-837-2128
Solomon, Robert E, MD
125 Medical Park Lane
Suite H
Murphy NC 28906
828-837-2128
Waggoner, Kathryn G, DO
125 Medical Park Lane
Suite H
Murphy NC 28906
828-837-2128

Pulmonology
Mock, David J, MD
3905 Hwy 64 E
Suite 9
Murphy NC 28906
828-835-3111

Radiology
Kaufman, Bryan L, MD
4130 US Hwy. 64 East
Murphy NC 28906
828-835-7502
MMC Radiology Department
Dixson, George R, MD
4130 US Hwy 64 East
Murphy NC 28906
828-837-0990

Urology
Martin, Jeffrey H, MD
75 Medical Park Lane
Suite A
Murphy NC 28906
828-835-3900
Mugharbil, Ziyad H, MD
4188 E. U.S. 64
Suite 6
Murphy NC 28906
828-837-7513
APPENDIX F

State of Cherokee County’s Health for Year 2007

Cherokee County is North Carolina’s westernmost county, located in the southern tip of the Blue Ridge Mountains. The county is bordered by the states of Tennessee and Georgia. Cherokee County is a small rural county with a population in 2006 of 26,309 according to the US Census Bureau. Cherokee County has 20.3% of the population between 0-18 years of age, 59.5% of the population between 18-65 years of age, and 20.2% are age 65 and over (U.S. Census 2005 Data). The per capita income for Cherokee County is $15,814 (U.S. Census 1999 Data) which is considerably lower than the state of $20,307. This could be due in part to the fact that only 73.3% of the Cherokee County population has obtained a high school diploma compared to the state rate of 78.1% (U.S. Census 200 Data). The recent loss of industrial manufacturing has also affected the per capita income for Cherokee County. There are 15.1% of Cherokee County residents living below poverty level as compared to the state rate of 13.8% (US Census 2004 Data).

According to the N.C. State Center for Health Statistics/"NC County Trend Reports (combined 200-2004 data), Cherokee County had a heart disease death rate of 232.4/100,000 population which is just below the state rate 233.9/100,000 population. Cherokee County’s death rate caused by diabetes is 25.6/100,000 which is lower than the state’s rate of 27.5/100,00 (N.C State Center for Health Statistics, “N.C. County Trend Reports”). The report combined 2000-2004 data. According to the same above mentioned resource, Cherokee County’s unintentional injuries (including motor vehicle deaths) resulted in a death rate of 73.3/100,000 versus the state which is 44.4 /100,000 population higher than any surrounding
county: Clay –67.0, Graham –62.8, Swain –66.7, Macon-53.1. According to the 2001-2005 data for 2006 County/State Report, Cherokee County’s cancer rate is 201.5/100,000 compared to the state of 197.7 per 100,000 (N.C. Center for Health Statistics). According to the 2001-2005 data for 2006 County/State Report our cancer rate is 201.5/100,000 compared to the state rate of 197.7/100,000 (N.C. Center for Health Statistics).
The two pie graphs shown above are from the N.C. Central Cancer Registry. They show that Cherokee County has a higher rate of lung cancer and a lower rate of prostate cancer than the state.

**Priority Issues Identified in 2004 Community Health Assessment**

The priority issues identified in the 2004 Community Health Assessment were:

1. Programs and education to improve diet and exercise, thereby reducing chronic disease.
2. Affordable health care and prescription medication. Cherokee county needs greater access to affordable/indigent sick care to relieve the service burden of our hospital emergency department.
3. Addressing the limited number of jobs providing benefits.

**New Initiatives**

1. Cherokee County Health Department collaborated with Cherokee County Cooperative Extension Service to conduct a county employee wellness program.
2. The Health Educator also collaborated with Cherokee County Cooperative Extension to present a 12 week wellness program for a local manufacturing company.
3. Cherokee County Health Educator partnered with Cherokee County Cooperative Extension, and Cherokee County School System to address child obesity via school health fairs which included body mass index calculations for every student pre-K through 12th grade.
4. Cherokee County Health Educator implemented the Walk ’n Talk program. Students added physical activity to the beginning of the school day as they walked around the gym and socialized with friends.

5. Community partners in Murphy constructed a one and one half mile walking trail. River walk trail begins along the river, continues through the town and around the Health Department, and ends at a local elementary school.

6. Cherokee County Health Educator partnered with Cherokee County Cooperative Extension to offer nutritional classes for the senior adults at the County Senior Centers.

**Progress on 2004 Health Issues**

1. Obesity in Cherokee County continues to be a health concern for all ages. North Carolina ranks 17th in the U.S. in highest rate of overweight and obese adults (Trust for America’s Health 2005 data). In Cherokee County and the surrounding region, 60.9 percent of adults are overweight or obese (NC State Center for Health Statistics, Behavioral Risk Factor Survey, MAHEC region Excluding Buncombe, 2006 data). According to the Pediatric Nutrition Surveillance System (2005 data), 25.8% of Cherokee County children ages 2-5 are overweight or obese. No data for children ages 5-18 who are overweight or obese is available.

2. Access to health care continues to be a critical issue in Cherokee County especially for our uninsured and underinsured population. Access to maternity services has improved as our local hospital (Murphy Medical Center) has two full time ob/gyn physicians on
staff. Access to orthopedic care in our area has also improved. We have an orthopedist on staff at our local hospital (MMC).

(N.C. State Center for Health Statistics and N.C. County Trends Report).

3. Addressing the limited number of jobs providing benefits. It is difficult to research and find the number of workers with benefits. According to 2000 census, Cherokee County has 22.6% of the workers who are professionals which compared to the state of 31.2%. (N.C. Rural Economic Development Center’s Rural Data Bank, 2007 data). More Cherokee County people are employed in manufacturing and production and fewer in sales than N.C. as a whole (same source as above). However the average wage for manufacturing is significantly lower in Cherokee County than North Carolina. Cherokee County has a wage of $29,121 and North Carolina has a wage of $42,703 (NC. Employment Commission, 2005 as sited as source above). No new jobs are available especially manufacturing. There has been a significant drop in the amount of house construction leaving construction workers with no jobs.

4. Child maltreatment reports investigated and substantiated remain higher than the state. In Cherokee County in 2005, 99.0 cases per 1,000 children were investigated compared to 53.6 per 1,000 statewide (Action for children 2006 county data card). In Cherokee County, 28.3 per 1,000 children had maltreatment substantiated as opposed to 9.8 per 1,000 in the state (same source from above).

NEW AND EMERGING ISSUES

1. Cherokee County Health Department staff turnover in critical positions to coordinate community activities in an effort to address health concerns. For example, the only Public Health Educator has remained vacant for over one year.
2. Cherokee County has 30% of expectant mothers who smoke during pregnancy compared to the 13.2% state rate (N.C. State Center for Health Statistics, “N.C. county Trends Report”, combined 200-2004 data).

3. In 2005 our county had a backlog of 1200 septic permit applications which caused an 8 month waiting time for residents and developers which persisted into 2006. As of November 2007, the backlog stands at 400 pending applications. A significant portion of this backlog has been addressed by the Environmental Health Staff during this present decrease in house construction.